REMARKS

Favorable reconsideration of this application as presented herein is requested. Claims 1-3 and 5 are pending in this application for reconsideration. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected Claims 1 and 5 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,125,286 to Jahagirdar et al. (the Jahagirdar Patent) in view of U.S. Patent No. 6,144,358 to Narayanaswamy et al. (the Narayanaswamy Patent).

The present invention is directed to a mobile telephone set using a liquid crystal display (LCD) for the display portion.

Conventional methods present significant disadvantages in that the level of downsizing, weight reduction, and slimming down of mobile telephones is ever increasing, and therefore, the structure of mobile telephones is changing in such a manner that the LCD 13 located on the upper part of the terminal is getting closer to the antenna 14. The receiving sensitivity of the antenna 14 is deteriorated due to the noise generated from the address data bus connected to the LCD 13. According to the present invention, an LCD exclusive address data bus is independently provided from the other functional blocks, so that deterioration of the receiving sensitivity is reduced. Further, while the radio signal is received, access to the LCD exclusive address data bus is suspended. Furthermore, the LCD exclusive address data bus is driven by lower voltage, so that the noise from the LCD data bus is reduced.

The rejection contends that although the Jahagirdar Patent fails to disclose a second address data bus for connecting the control means to the display means independently of the first address data bus, the Narayanaswamy Patent teaches in an analogous art a second address data bus for connecting the control means to the display means independently of the first address data bus that connects the control means and storage means. With respect, the Examiner's argument is traversed. According to the Narayanaswamy Patent, as shown in Figure 2, there is no address data bus connecting principal integrated circuits such as the control means and the storage means at all. As described in Column 3, lines 12-50, image generator 206 generates image signals to display driver 208. Display driver 208, in turn, receives the image signals from the image generator 206 and distributes appropriate subsets of image signals to the various display devices 210 for display. Conversely, according to the present invention, the first and second data buses are data paths to transmit data independently of each other between the control means and the storage and display means, respectively.

Regarding the Jahagirdar Patent, which fails to disclose the second address data bus as the Examiner admits, the Examiner insists that line 524 of Figure 5 corresponds to the first address data bus. The Examiner's argument is respectfully traversed. Line 524's function is not to transfer data but rather to supply driver 514 and display element 516 with electric power. As described in Column 6, line 53, controller 504 powers on driver 514 and display element 516 via line 524. Conversely, according to the present invention, the first and second address data buses are used for transferring data. Consequently, the Narayanaswamy Patent does not disclose the first address data bus and the Jahagirdar Patent does not disclose the second address data bus.

Moreover, absent hindsight of Applicants' invention, there is no motivation or teaching to combine the Jahagirdar Patent with the Narayanaswamy Patent because the object of the latter is to have a much larger area of screens while the object of the former is to provide a communication device having multiple displays. A teaching that one display driver may drive numerous displays seems irrelevant to the claimed invention or to combine Jahagirdar Patent with the Narayanaswamy Patent to attempt to arrive at the claimed invention. The object of the claimed invention which is to reduce noise from the address data bus is different from both objects of the cited Patents.

Consequently, Claim 1 is not rendered obvious by the Jahagirdar Patent when considered alone or in combination with the Narayanaswamy Patent. Claim 5 is a claim dependent from Claim 1 and therefore includes all the limitations of that independent claim. Since the Jahagirdar and Narayanaswamy Patents do not render Claims 1 and 5 unpatentable, Applicants respectfully submit that the rejection thereof be withdrawn by the Examiner.

Next, the Examiner rejected Claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the Jahagirdar Patent and the Narayanaswamy Patent in view of U.S. Patent No. 5,077,832 to Szczutkowski et al. (the Szczutkowski Patent).

The Szczutkowski Patent fails to eliminate the deficiencies with the Jahagirdar and Narayanaswamy Patents as set forth above with respect to Claims 1 and 5. Further, in the Szczutkowski Patent, the data output line (DATA OUT) is not exclusively used for LCD display 122. The data output line DATA OUT is also used for communication between the microprocessor 152 and other elements such as the shift-register 170. An LCD exclusive address

data bus as claimed is not shown in this reference. Further, the reference fails to teach or suggest that while the radio signal is received, access to the LCD exclusive address data bus is prohibited.

Moreover, absent hindsight of Applicants' invention, there is no motivation or teaching to combine the Jahagirdar Patent and the Narayanaswamy Patent with the Szczutkowski Patent because the latter describes a radio transceiver which facilitates the incorporation or omission of a display capability during production. On the other hand, the object of the claimed invention is to reduce noise from the address data bus.

Consequently, Claim 2 is not rendered obvious by the Jahagirdar Patent when considered alone or in combination with the Narayanaswamy and Szczutkowski Patents. Claim 2 is a claim dependent from Claim 1 and therefore includes all the limitations of that independent claim. Since the Jahagirdar, Narayanaswamy and Szczutkowski Patents do not render Claim 2 unpatentable, Applicants respectfully submit that the rejection thereof be withdrawn by the Examiner.

The Examiner also rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over the Jahagirdar Patent and the Narayanaswamy Patent in view of U.S. Patent No.6,035,180 to Kubes et al. (the Kubes Patent).

The Kubes Patent does not eliminate the deficiencies with the Jahagirdar and Narayanaswamy Patents set forth above. Further, the Kubes Patent discloses a voltage applied to a conductive layer or conductive wire of the display which generates light. A voltage or current across the etched "wires" in layers 23 and 24 would cause light to be produced from the regions of the composite layers 25/26 of electroluminescent material. However, the reference fails to

show a drive voltage for an address data bus which is connected to the display means. In the present invention, the LCD exclusive address data bus is driven by lower voltage so that the noise from the LCD data bus is reduced.

Moreover, absent hindsight of Applicants' invention, there is no motivation or teaching to combine the Jahagirdar Patent and the Narayanaswamy Patent with the Kubes Patent because the purpose of the Kubes Patent is to provide pixels that are controlled to both create a decorative design on the housing of the telephone and to generate a user input-output region and a display region. This is quite different than the present invention which teaches that by using the LCD exclusive address data bus 11 for the LCD controller 7 independently of other blocks, the noise from the address data bus 10 generated when blocks other than the LCD controller 7 are accessed is minimized.

Consequently, Claim 3 is not rendered obvious by the Jahagirdar Patent when considered alone or in combination with the Narayanaswamy Patent and the Kubes Patent. Claim 3 is a claim dependent from Claim 1 and therefore includes all the limitations of that independent claim. Since the Jahagirdar, Narayanaswamy, and Kubes Patents do not render Claim 3 unpatentable, Applicants respectfully submit that the rejection thereof be withdrawn by the Examiner.

Applicant respectfully submits that this application is in condition for allowance and requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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